

REMARKS

In accordance with the foregoing, the specification and claim 17 has been amended. Claims 19 and 20 have been cancelled without prejudice to or disclaimer of the subject matter recited therein. Claims 1-18 and 21 are pending, and **claims 17 and 18 are under consideration.**

No new matter is believed to have been added.

Rejections Under 35 U.S.C. § 112

Claims 18 – 20 are rejected under 35 U.S.C. § 112, first paragraph as failing to comply with the enablement requirement. Applicants respectfully traverse the rejection.

Generally, the requirements of 35 U.S.C. §112, first paragraph, are that the written description demonstrate to one of ordinary skill in the art that the inventor is in possession of the invention itself. Union Oil Co. v. Atlantic Richfield Co., 54 USPQ2d 1227, 1232-33 (Fed. Cir. 2000), In re Hayes Microcomputer Prods., Inc. Patent Litigation, 25 USPQ2d 1241, 1245 (Fed. Cir. 1992).

As a general matter, in order to establish a prima facie case for a rejection under 35 U.S.C. §112, first paragraph, the Examiner must provide evidence as to why one of ordinary skill in the art would believe that the disclosure does not reasonably convey to the artisan that the inventor had possession at that time of the later claimed subject matter. E.g., In re Alton, 37 USPQ2d 1578 (Fed. Cir. 1996) (prima facie case established by specifically pointing out which example in the specification does not support the claims), In re Gosteli, 10 USPQ2d 1614, 1618 (Fed. Cir. 1989) (prima facie burden met where Examiner pointed out numerous differences between claimed subject matter and the written description).

However, it is not necessary that the application describe the claim limitations exactly, but only so clearly that persons of ordinary skill in the art will recognize from the disclosure that appellants invented processes including those limitations. In re Wertheim, 191 USPQ 90, 96 (CCPA 1976). Similarly, "[the specification] need only be reasonable with respect to the art involved; they need not inform the layman nor disclose what the skilled already posses. They need not describe the conventional...The intricacies need not be detailed ad absurdum." General Electric Co. v. Brenner, 159 USPQ 335 (D.C. Cir. 1968). In addition, a defining aspect of enablement is that there isn't undue experimentation, i.e., experiment required to reproduce the claimed features is satisfactory, as long as it isn't undue experimentation. In re Geerdes,

180 USPQ 789, 793 (CCPA 1974).

Factors to consider when determining whether there is undue experimentation required are outlined in MPEP 2164.01(a), which includes (A) the breadth of the claims; (B) the nature of the invention; (C) the state of the prior art; (D) the level of one of ordinary skill; (E) the level of predictability in the art; (F) the amount of direction provided by the inventor; (G) the existence of working examples; and (H) the quantity of experimentation needed to make or use the invention based on the content of the disclosure.

Accordingly, it is respectfully submitted that it would have been obvious to one of ordinary skill in the art, after review of the present invention and disclosure, to make and use the invention with an equalizer that strengthens the high frequency components of signals AC1 and BD1 without undue experimentation. As defined in Merriam-Webster Online Dictionary, to equalize means to adjust or correct the frequency characteristics of a signal. Equalization of signals is well known in the electronic arts and is performed by a device that allows for frequency dependent gains. In order to make and use the invention as recited in claim 18, one skilled in the art could simply measure signals AC1 and BD1 and then based upon the measurements assign a range as a high frequency range of the measured signals. Then achieving the desired waveform property as shown in FIG. 8 is simply a matter of running a few experiments to achieve the desired form. For one of skill in the art, such a required experiment to reproduce the claimed features is satisfactory, and does not constitute undue experimentation.

In the Office Action, the Examiner has not provided a reasonable basis upon which to conclude that one skilled in the art would not be able to make or use the claimed invention without undue experimentation. There is no explanation as to why, assuming that the equalizers are critical or essential to the practice of the invention, one skilled in the art would be unable to make or use the invention claimed in claim 18, when the specification teaches the use of such equalizers to strengthen high frequency components and remove noise from the optical signals from the optical detector. FIG. 8 is a graph showing operation of the equalizers that "perform the function of controlling their properties so that an input signal can be positioned between a first frequency f_1 and a second frequency f_2 to amplify the high frequency component which is close to the second frequency f_2 ." Though no specific frequency value is disclosed, as mentioned above a few experiments by one skilled in the art would readily yield the necessary values.

Rejections under 35 U.S.C. §102(b)

Claims 17 – 20 are rejected under 35 U.S.C. § 102(b) as being anticipated by JP 10-302277 ('277). This rejection is respectfully traversed.

The reference of record, '277, discloses an optical device with a phase comparator with automatically variable frequency waveform, which can change frequency characteristics in accordance with an external input from the PLL circuit 7. (See electronic translation page 11 paragraph 0064 and FIGs. 13 and 14). The '277 discloses that D flip flops 151 and 153 together with the NOR gates 159 and 160 are equivalent to the conventional phase comparator 26 in FIG. 2. D flip-flops 161 and 162 are adjustable monostable multivibrators which adjust a time constant based on an external input voltage level. Further, as seen in FIG. 12 the tracking error signal a5 b5 is based on the pits detected on the disc as shown by signals a2 b2.

In contrast, claim 17 as amended recites "a phase lock loop circuit receiving a first clock signal and each matrixed signal, the phase lock loop circuit *outputting second and third clock signals* synchronized with the respective matrixed signals; and a phase detector which compares a phase of the *second synchronized clock signal* with a phase of the *third synchronized clock signal* to generate the tracking error signal, wherein the tracking error signal is *independent of a length of pits and/or marks on the optical disk recording track*."

In view of the above, it is respectfully submitted that the rejection is overcome.

CONCLUSION

Applicant submits that this Amendment After Final Rejection clearly places the subject application in condition for allowance. This Amendment was not earlier presented, because Applicants believed that the prior Amendment placed the subject application in condition for allowance. Accordingly, entry of the instant Amendment as an earnest attempt to advance prosecution and reduce the number of issues is requested under 37 C.F.R. § 1.116.

Applicants believe that the present Amendment is responsive to each of the points raised by the Examiner in the Official Action. However, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to such matters.

Serial No. 09/613,695

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: 9/21/2004

By: Steven W. Crabb
Steven W. Crabb
Registration No. 46,092

1201 New York Avenue, NW, Suite 700
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501